

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein there are stress release portions at least partially ~~in said peripheral wall layer and/or~~ between said peripheral wall layer and said grooves.

Claims 2. - 22. (canceled).

23. (withdrawn): A method for producing a ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, comprising the steps of shaping a soft ceramic material by extrusion and drying it to form a ceramic honeycomb green body, removing a peripheral wall from said ceramic honeycomb green body to form a ceramic honeycomb body, and forming said peripheral wall layer on said ceramic honeycomb body before or after firing said ceramic honeycomb body.

24. (withdrawn): The method according to claim 23, wherein said green body is fired in a state where said ceramic honeycomb green body is placed on a table with its one opening end abutting said table, and a portion of said green body adjacent to said table is then cut.

25. (withdrawn): The method according to claim 24, wherein said peripheral wall is removed in a green body portion adjacent to said table according to a dimensional change predicted by firing.

26. (withdrawn): The method according to claim 23 to 25, wherein said ceramic honeycomb body is made of cordierite, and wherein said peripheral wall layer is formed by a coating material comprising 100 parts by mass of amorphous silica particles and 2 to 35 parts by mass (on a solid basis) of colloidal silica and/or colloidal alumina.

Claim 27. (canceled).

28. (new): The ceramic honeycomb structure according to claim 1, which further has stress release portions at least partially in said peripheral wall layer.

29. (new): The ceramic honeycomb structure according to claim 28, wherein said stress release portions are voids provided in said peripheral wall layer such that they are open on a periphery thereof.

30. (new): The ceramic honeycomb structure according to claim 29, wherein the total length of said voids is equal to or larger than the full length of said ceramic honeycomb structure.

31. (new): The ceramic honeycomb structure according to claim 29, wherein voids provided in said peripheral wall layer are in the form of a slit.

32. (new): The ceramic honeycomb structure according to claim 29, wherein voids provided in said peripheral wall layer are cracks in said peripheral wall layer.

33. (new): The ceramic honeycomb structure according to claim 1, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

34. (currently amended): The ceramic honeycomb structure according to claim 38, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

35. (new): The ceramic honeycomb structure according to claim 34, wherein the total length of a contact portion of the grooves with the peripheral wall layer is 95% or less based on the total length of the grooves.

36. (new): The ceramic honeycomb structure according to claim 28, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

37. (new): The ceramic honeycomb structure according to claim 36, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the total number of the grooves.

38. (new): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein the thermal expansion coefficient of said peripheral wall layer is smaller than those of said cell walls in a radial direction,

wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of $10.0 \times 10^{-7}/^{\circ}\text{C}$ or less.

39. (new): The ceramic honeycomb structure according to claim 38, comprising stress release portions at least partially between said peripheral wall layer and said grooves.

40. (new): The ceramic honeycomb structure according to claim 39, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

41. (new): The ceramic honeycomb structure according to claim 40, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the total number of the grooves.

42. (new): The ceramic honeycomb structure according to claim 40, wherein the total length of a contact portion of the grooves with the peripheral wall layer is 95% or less based on the total length of the grooves.

43. (new): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, said ceramic honeycomb body being obtained by removing a peripheral wall and nearby cell walls before firing.

44. (new): The ceramic honeycomb structure according to claim 43, wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of $10.0 \times 10^{-7}/^{\circ}\text{C}$ or less.

45. (new): The ceramic honeycomb structure according to claim 43, wherein there are stress release portions at least partially between said peripheral wall layer and said grooves.

46. (new): The ceramic honeycomb structure according to claim 45, which further has stress release portions at least partially in said peripheral wall layer.

47. (new): The ceramic honeycomb structure according to claim 1, wherein said peripheral wall layer is formed before or after firing said ceramic honeycomb body.

48. (new): The ceramic honeycomb structure according to claim 47, wherein said ceramic honeycomb structure has an isostatic strength of 1.5 MPa or more.

49. (new): A particulates-capturing filter using a ceramic honeycomb structure according to claim 1.

50. (new): A particulates-capturing filter using a ceramic honeycomb structure according to claim 33.

51. (new): The ceramic honeycomb structure according to any one of claims 28-30, 33-35, 38-41, 43-45 or 47-53, wherein said cell walls of said ceramic honeycomb structure have a porosity of 50 to 80% and an average pore size of 10 to 50 μm .

52. (new): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein said peripheral wall layer is made of a mixture comprising amorphous silica particles and an amorphous oxide matrix, and wherein said amorphous oxide matrix is formed from colloidal silica and/or colloidal alumina, and

wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of $10.0 \times 10^{-7}/^{\circ}\text{C}$ or less.

53. (new): A coating material for forming a peripheral wall layer of a ceramic honeycomb structure, comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass (on a solid basis) of colloidal silica and/or colloidal alumina, wherein said amorphous silica has a thermal expansion coefficient of $10.0 \times 10^{-7}/^{\circ}\text{C}$ or less, an average particle size of 1 to 100 μm and an aspect ratio of 10 or less.